

for



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/461,211 | 12/15/1999 | Hiroyasu Koizumi | 018889/0156 | 3525 |

7590 02/25/2003

RICHARD L SCHWAAB
FOLEY & LARDNER
WASHINGTON HARBOUR
3000 K STREET NW SUITE 500
WASHINGTON, DC 200075109

EXAMINER

ATKINSON, CHRISTOPHER MARK

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3743

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/461,211

Applicant(s)

Koizumi et al.

Examiner

A.H. Kinson

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/13/02
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-2 and 4-21 is/are pending in the application.
- 4a) Of the above, claim(s) 9, 12, 14 and 19-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-8, 10-11, 13, 15-18 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

Art Unit: 3743

Response to RCE and Amendment

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claims 9, 12, 14 and 19-20 remain withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 1-2, 4, 13, 15, 18 and 21 are rejected under 35 U.S.C. § 103 as being unpatentable over Iokawa et al. in view of Kato ('198). The patent of Iokawa et al. in figures 1-7 discloses all

Art Unit: 3743

the claimed features of the invention with the exception of the reinforcement hole having arch sections in a thickness direction and ^{the} claimed dimensions.

The patent of Kato ('198) in Figures 1-2 and 5 discloses that it is known to have the reinforcement hole having arch sections in a thickness direction for the purpose of matching the corresponding reinforcement member. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Iokawa et al. the reinforcement hole having arch sections in a thickness direction for the purpose of matching the corresponding reinforcement member as disclosed in Kato ('198). The claimed angle and dimensions are considered to be obvious design expedients in view of the angle and dimensions illustrated in Ikagawa which do not solve any stated problem or produce any new and/or unexpected result.

Claims 5-8, 10-11 and 16-17 are rejected under 35 U.S.C. § 103 as being unpatentable over Iokawa et al. in view of Kato ('198) as applied to claims 1-2, 4, 13, 15, 18 and 21 above, and further in view of Hooton ('751) and Matsuura ('819). The patent of Iokawa et al. discloses all the claimed features of the invention with the exception of the claimed dimensions.

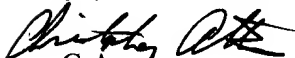
The document of Hooton ('751) in figure 3 discloses that it is known to have the tubes being smaller than the fins in the width direction for the purpose of enhancing the heat transfer area of the heat exchanger. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Iokawa et al. as modified, the tubes being smaller than the fins in the width direction for the purpose of enhancing the heat transfer area of the heat exchanger as disclosed in Hooton ('751).

Art Unit: 3743

The patent of Matsuura ('819) in figure 20 discloses that it is known to have the width of the reinforcement member smaller than the width of the fin for the purpose of decreasing the cost and weight of the heat exchanger. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Iokawa et al. as modified, the width of the reinforcement member smaller than the width of the fin for the purpose of decreasing the cost and weight of the heat exchanger as disclosed in Matsuura ('819). The claimed angle and dimensions are considered to be obvious design expedients in view of the angle and dimensions illustrated in Ikagawa which do not solve any stated problem or produce any new and/or unexpected result.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.


C.A.

February 24, 2003

CHRISTOPHER ATKINSON
PRIMARY EXAMINER